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EXAMINER

MONSHIPOURI MARYAM

ART UNIT PAPER NUMBER

1652

DATE MAILED 02/07/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/779,323

Applicant(s)
Sjoeholm et al.

Examiner
Maryam Monshipouri

Art Unit
1652



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-19 and 21-30 is/are pending in the application.
- 4a) Of the above, claim(s) 14-19 and 21-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

- 15) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1. Notice of References Cited (PTO 892) 4. International Search Report (PCT 413, Paper No. 5)

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Claim 20 has been canceled. Claims 14-19, 21-30 are still at issue and are present for examination.

Applicants' arguments filed on 11/01/2002 and 11/19/2002, paper Nos. 13 & 14, respectively, have been fully considered and are deemed to be persuasive to overcome some of the rejections previously applied. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn.

In traversal of restriction requirement applicant argues the following two arguments (1) that SEQ ID NO:1-2 are homologous. Thus a search of Group I would necessarily encompass a search of Group II and therefore rejoining said inventions does not impose an undue burden of searching on the examiner. Similarly, according to applicant, Groups III and IV or V and VI should be rejoined.

(2) Moreover, applicants submit that claims 14 and 20 link Groups I-VI. Therefore, upon allowance of the linking claim, the restriction requirement as to the linked inventions should be withdrawn and all claims within the linked inventions should be examined.

In response to applicant's **first** argument the examiner maintains that homology between polypeptides does not render them unpatentable over each other. Applicant is well aware that prior art shows several cases of polypeptides which have greater than 90% homology to each

Aspects of the prior art polypeptide may overlap and they would search for each polypeptide

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requires a different search strategy. Hence, in contrast to applicant's view rejoinder of Groups I and II and finally all pending claims does impose an undue burden of searching on the examiner.

With respect to applicant's **second** argument the examiner is not clear as to how claim 20 is a linking claim as it is directed to SEQ ID NO:2, a single product. Further, currently no claim is allowable. Once allowable subject matter is identified the examiner will consider rejoinder of proper linking claims if any were found.

DETAILED ACTION

Claims 25-30, drawn to elected subject matter, namely a method of preparing animal feed preparation comprising SEQ ID NO:1, are still at issue and under examination. Claims 14-19 and 21 are withdrawn as drawn to non-elected invention.

Claim Objections

1. Claim 25-27 are objected to because of the following informalities: the claims depends from non-elected claim 22. Claims 26-27 are objected to merely for depending from a base claim under objection. Appropriate correction is required.

obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bedford (cited previously) in view of Snow-Brand (cited previously) as stated in the previous office action. In overcoming this rejection applicant argues that none of cited references teaches a feed additive comprising *Nocardiopsis protease* (SEQ ID NO:1) of this invention.

Further, the feed additives described in Bedford are said to have improved feed conversion ratios (FCR), which results in more efficient utilization of the feed. However, the results shown in Examples 2 and 5 of Bedford do not display improved FCR's. In fact in both examples FCR's obtained in feed additives comprising proteases showed a minute improvement over control feed additives, which are probably within the margin of experimental error.

On the other hand, the instant invention demonstrates in Example 3 that the protease of SEQ ID NO:1 has a statistically and significantly better effect on protein solubilization. These results are surprising and unexpected.

Therefore, due to the above reasons applicant submits that the rejection should be withdrawn.

applicant's arguments the examiner would like to indicate that if either of cited references was teaching a feed additive comprising SEQ ID NO:1 of this invention said reference would have

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been cited as in a 102 (anticipatory) rejection rather than in a 103 rejection. Further, Bedford reference was merely cited to indicate that the prior art generally teaches a genus feed additives comprising enzymes such as xylanase, protease and beta glucanase from any source or species alone or in mixtures. The fact that some of protease containing feed additive compositions (species) of Bedford do not improve the overall FCR of the feed does not discourage one of ordinary skill in the art in preparing said feed additive compositions using proteases from other sources alone or in combination with other above mentioned enzymes. This is because of two reasons: firstly, Bedford in page 25 of the disclosure teaches numerous possible sources for proteases and specifically teaches that proteases to be used in their invention should not be limited to proteases referred to in the disclosure.

Furthermore, the allegedly super efficient and unexpected FCR's obtained by the feed additives of this invention and methods of preparing said feed additives are not recited in the claims in order to possibly render the claims allowable over the prior art.

In conclusion, due to aforementioned reasons in addition to those provided previously, the rejection is maintained.

No claims are allowed.

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

a shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Maryam Monshipouri, Ph.D. whose telephone number is (703) 308-1083.

The Examiner can normally be reached daily from 8:30 A.M. to 5:00 P.M. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Dr. P. Achutamurthy, can be reached at (703) 308-3804. The OFFICIAL fax number for Technology Center 1600 is (703) 308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 1600 receptionist whose telephone number is (703) 308-0196.

Maryam Monshipouri, Ph.D.

Primary Examiner